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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,659	12/12/2001	Friedemann Baitinger	DE920000088US1	2020

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EXAMINER

NGUYEN, VAN KIM T

ART UNIT	PAPER NUMBER
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2151

DATE MAILED: 06/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/020,659

Applicant(s)

BAITINGER ET AL.

Examiner

Van Kim T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/12/2001</u> . | 6) <input type="checkbox"/> Other: _____ |

KD

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DETAILED ACTION

1. This Office Action is responsive to communications filed on December 12, 2001.

Claims 1-36 are pending in the case.

Receipt is acknowledged of documents submitted under 35 U.S.C. §119 (a)-(d). The effective date of the subject matter in the claims of this application, therefore, is December 15, 2000.

Submission of the information disclosure statement (IDS) on December 12, 2001 is in compliance with the provision of 37 CFR 1.97. Accordingly, the IDS is being considered by the Examiner.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference characters not mentioned in the description: 295, 380, 3150: Fig. 2, 3, and 4, respectively.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference characters in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application.

Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. ***Claims 1-2, 4-5, 13-14, 16-17, 25-26, 28-29, and 35*** are rejected under 35 U.S.C. 102(b) as being anticipated by Knox et al (US 5,872,968), hereinafter Knox.

Regarding claims 1, 13 and 25, as shown in Figures 1-2, Knox discloses a method for managing network (10) the configuration data, the network comprising a plurality of first type computers (30, 32, 34, 36) having a limited function range (e.g., diskless) excluding at least a self-boot process (col. 1: lines 23-33; and col. 3: lines 32-56) and being bootable by a second type computer (20, 22, 24) having a respective extended function range (col. 3: lines 1-18; and col. 3: line 57 – col. 4: line 5), comprising:

sending location information (e.g., hardware address of the client) about the first type computer such that a respective second computer may receive it (col. 4: lines 38-43).

Regarding claims 2, 14 and 26, Knox also discloses the location information is included into boot messages (e.g., bootrequest) usable between first type and second type computers according to a predetermined network communication protocol (e.g., BOOTSTRAP PROTOCOL, TCP/IP; col. 4: line 57 – col. 5: line 22).

Regarding claims 4, 16, and 28, Knox also discloses in providing a flagging (opcode filed) in the boot message for distinguishing between the boot message (bootrequest) and the Infoboot message (bootreply), (col. 4: lines 32-37).

Regarding claims 5, 17 and 29, Knox also discloses the location information (e.g., hardware address of the client) is included into boot messages (e.g., bootrequest) according to the Bootp protocol (BOOTSTRAP PROTOCOL; col. 4: line 38 – col. 5: line 22).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. ***Claims 3, 15, 27, and 36*** are rejected under 35 U.S.C. 103(a) as being unpatentable over Knox, in view of Subramaniam et al (US 6,070,187), hereinafter Subramaniam.

Regarding claims 3, 15, and 27, Knox also discloses including current information about the first type computer (e.g., the client IP address) into Infoboot messages (bootreply) having same format as the boot messages (col. 4: lines 50-57).

Knox discloses substantially all claimed limitations except periodically sending current status information in the boot messages after a successful boot of the first type computer.

As shown in Figures 8-10, Subramaniam discloses periodically (e.g., when a network node seeks to renew the lease on its IP address) sending current status information (IP address) in the boot messages (DHCPREQUEST) after a successful boot of the first type computer (col. 12: lines 12-15; and col. 14: lines 10-22).

Knox and Subramaniam teach analogous art because both offer system and techniques relating to boot protocols, such as the dynamic host configuration protocol (DHCP), etc. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Subramaniam's method of automatically configuring parameters of a network node in Knox's system, motivated by the needs of reducing network traffic and minimizing network configuration administration's efforts.

Regarding claim 36, though the combination of Knox and Subramaniam does not explicitly disclose the operating second type server computers serving first type embedded

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controller computers in a computer-controlled industry plant. However, it is well known in the art, a client-server network structure can be used in nearly all, if not all, networked environments. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use such the client-server network structure in a computer-controlled industry plant, if needs is warranted.

Claim Rejections - 35 USC § 103

7. ***Claims 6-12, 18-24, and 30-34*** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bahlmann (US 6,578,074).

Regarding claims 6, 11, 18, 23, and 30, as shown in Figures 1-3, Bahlmann discloses a method for managing network configuration data, the network comprising a plurality of first type computers (130 – 136, 230 – 236; col. 5: lines 27-34) and a second type computer (200, 206, 208, 210, 212), comprising:

collecting (listening and replying to) first-type-computer-related location and/or status information (MAC address) from a plurality of locations in the network by evaluating messages (discovery messages) sent out by the first type computers (step 300; col. 5: lines 42-58, and col. 6: lines 24-26); and

storing (store, write update) the location and/or status information (col. 8: lines 10-14, col. 10: lines 5-22, esp. lines 11-14).

However, Bahlmann does not explicitly call for the first type computers having limited function range excluding at least a self-boot process and being bootable by a second type computer having a respective extended function range.

Regarding claims 7, 19, and 31, Bahlmann also discloses the second type computer is a server, and further using the location information for determining the server's own network location (e.g., provision server read the client information and write updated information to database 206; col. 10: lines 5-22).

Regarding claims 8, 20, and 32, Bahlmann also discloses collecting the information in a dedicated database (206; col. 8: lines 10-14, and col. 10: lines 5-22).

Regarding claims 9, 21, and 33, Bahlmann also discloses setting up a network configuration description according to the stored information (e.g., provision server read the client information and write updated information to database 206; col. 10: lines 5-22).

Though Bahlmann does not explicitly call for the first type computers having limited function range excluding at least a self-boot process and being bootable by a second type computer having a respective extended function range, it is a feature well known in the art for a client-server structure, especially one utilizing alternative boot techniques such as DHCP, i.e., the client does not boot from a locally stored operating system since it does not have a local mass storage device on which the operating system software can be stored, but is bootable from a server.

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made the first type computers can be diskless computers which are bootable by a server having a respective extended function range, motivated by the need of conserving and/or procuring storage space and better maintaining the network operation.

Regarding claims 10, 22, and 34, Bahlmann also disclose after a second-type-computer-related operation disruption (e.g., changing the IP address of the network gateway to a new network base IP address), evaluating current status and/or location information (leases) associated with the first type computers (col. 12: lines 17-59).

Though Bahlmann does not explicitly discloses evaluating current status and/or location information associated with the first type computers before other messages, but since the client's discover message could also be a boot message (col. 5: lines 26-28, and col. 10: lines 30-43), and since it is well know in the art boot messages are evaluated prior to other messages, it would have been obvious to one of ordinary skill in the art at the time the invention was made in the case of operation disruption, the current status and/or location information associated with the first type computers would be evaluated before other messages, in accordance with the BOOTP Protocol.

Regarding claims 12 and 24, Bahlmann also does not explicitly disclose the operating second type server computers serving first type embedded controller computers in a computer-controlled industry plant.

However, as it is well known in the art, a client-server network structure can be applied in nearly all, if not all, networked environments. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the client-server network structure in a computer-controlled industry plant, if needs is warranted.

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Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Van Kim T. Nguyen whose telephone number is 571-272-3073. The examiner can normally be reached on 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung, can be reached on 571-272-3939. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Van Kim T. Nguyen
Examiner
Art Unit 2151

vkn


ZARNI MAUNG
SUPERVISORY PATENT EXAMINER